"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

Phase diagram of titanium- ...

section Ti-$NbAl_3$ were quasibinary. The following phases were present in the region of concentration triangle Nb-Ti-$NbAl_3$: 1) ß-solid solution based on ß-modification of Ti; 2) α-solid solution (α-Ti); 3) ß-solid solution based on Nb_3Al; 4) σ-phase based on Nb_2Al; 5) z-solid solution based on $NbAl_3$; 6) γ-solid solution based on $TiNbAl_3$. γ-phase had a high oxidation stability and tensile strength which could be further improved by alloying it with Nb. Alloys containing >50% weight Ti had high tensile strength at 800 - 900°C and good heat resistance. Alloys were obtained with the oxidation rate at 900° - 1000°C of less than 1 g/m^2 hour. A disadvantage of the high alloyed Ti alloys is their low plasticity below 1000°C. There are 4 figures.

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33281

18.1200 1418 4016 1521

S/078/62/007/002/016/019
B127/B110

AUTHORS: Popov, I. A., Rabezova, V. I.

TITLE: Study of the phase diagram in the Nb-Ti-Al system at equilibrium

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 2, 1962, 436 - 439

TEXT: The authors studied the phases of the system Nb-Ti-Al, since corresponding data have not been published. Debye-Scherrer patterns, microstructure, hardness, and microhardness were studied. At 1200 - 1400°C, the region of solid solutions on the basis of Nb_3Al and Nb_2Al was found to be wide at an aluminum content of 50% by weight. Nb_3Al is thus formed in a peritectic reaction at 2060°C, Nb_2Al and $NbAl_3$ form from the melt at 1800°C and 1750°C, respectively. Solid ternary solutions on the basis of Nb_3Al, Nb_2Al, $NbAl_3$, and $TiNbAl_3$ occupy a wide region. The isothermal intersection of the phase diagram holds for the concentration triangle Nb-Ti-$NbAl_3$ at 1400°C, 1200°C, and 20°C. The character of phase

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Study of the phase diagram...

distribution at 1400°C differs from that at 1200°C only by a wider region of the solid β-phase. At 20°C, however, it becomes very narrow. In the concentration triangle Nb-Ti-$NbAl_3$, the following phases are observed: (1) A solid β-solution on the basis of the β-modification of Ti; (2) a solid α-solution on the basis of the α-modification of Ti; (3) a solid β_1-solution on the basis of Nb_3Al; (4) a solid σ-sclution on the basis of Nb_2Al; (5) a solid γ_1-solution on the basis of $TiNbAl_3$; (6) a solid z-solution on the basis of $NbAl_3$. Alloys on the basis of TiAl (γ) were highly resistant to oxidation at high temperatures. Strength and resistance to oxidation of alloys on the basis of the γ-phase, can be improved by Nb alloys. Ye. M. Savitskiy and V. V. Baron are mentioned. There are 4 figures and 9 references: 4 Soviet and 5 non-Soviet. The four references to English-language publications read as follows: H. Ogden, D. Maykuth, W. Finlay, R. Jaffe. J. of Metals, 3, 1105 (1951); M. Hansen, E. Kamen, H. Kessler, D. McPherson. J. Metals, 3, 881 (1951); E. Wood, V. Compton, B. Mathias, E. Corenzwit, Acta Crystallogr., 11, 604 (1958); McKingsey, Faulring, Acta Crystallogr., 12, 701 (1959).

Card 2/2

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L 14396-65 EWT(m)/EPF(n)-2/EPR/T/EWP(t)/EWP(b) Ps-4/Pu-4 ASD(f)-2/ASD(m)-3
ACCESSION NR: AT4046212 JD/JG/MLK S/0000/63/000/000/0016/0020

AUTHOR: Popov, I. A. (Moscow); Rabezova, V. I. (Moscow)

TITLE: Investigation of the phase diagram of the Nb-Ti-Al system

SOURCE: Yubileynaya konferentsiya po fiziko-khimicheskomu analizu. Novosibirsk, 1960. Fiziko-khimicheskiy analiz (Physicochemical analysis); trudy* konferentsii. Novosibirsk, Izd-vo Sib. otd. AN SSSR, 1963, 16-20

TOPIC TAGS: niobium, titanium, aluminum, niobium titanium aluminum system, niobium titanium aluminum alloy

ABSTRACT: Several series of Ti-Nb-Al alloys with compositions corresponding to Ti-Nb_3Al_1Ti-Nb_2Al, and Ti-$NbAl_3$ sections of the composition triangle were melted in a tungsten-electrode arc furnace from 99.3% pure niobium, AV-000 aluminum, and TG-00 titanium. From the results of microstructural and x-ray diffraction analyses and hardness tests, the isothermal sections of the Nb-Ti-Al phase diagrams at 1200C (see Fig. 1 of the Enclosure), 1400C, and 20C were plotted. The distribution of phases at 1400C does not differ significantly from that at

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L 14396-65
ACCESSION NR: AT4046212

1200C, except for a somewhat larger region of the β-solid solution. The following phases were identified: β-titanium-base solid solution, which decomposes at 750—800C, α-titanium-base solid solution, β_1-Nb_3Al-base solid solution, σ-Nb_2Al-base solid solution, γ-$TiNbAl_3$-base solid solution, and Z-$NbAl_3$- base solid solution. The niobium-rich alloys are of no practical interest because they are extremely brittle and have a low rupture strength, but alloys of the γ-region are highly oxidation-resistant, strong, and castable. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 10Sep63 ENCL: 01 SUB CODE: MM, SS

NO REF SOV: 002 OTHER: 002 ATD PRESS: 3136

Card 2/3

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 14396-65
ACCESSION NR: AT4046212

ENCLOSURE: 01

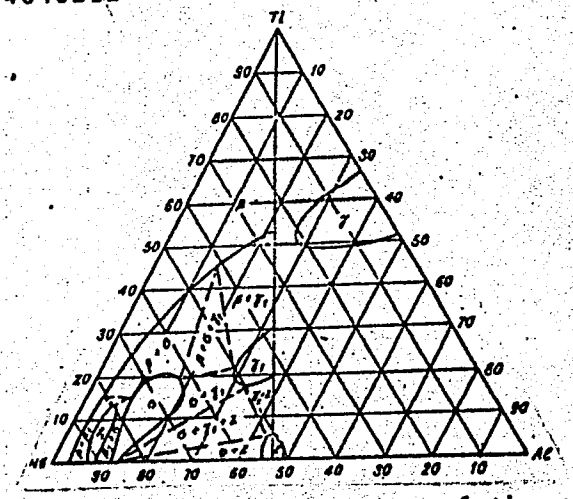

Fig. 1. Isothermal section of the phase diagram Nb-Ti-Al at 1200C.

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APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABFELD, Hermenegild, inz.

Improved quality of welds by mechanical and ultrasonic vibrations, and welding by ultrasound and electronic bombardment. Pt. 2. Zavarivanje 6 no.9:194-201 S '63.

1. Institut za lake metale, Zagreb.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICH, C.V.; VOL'KOVA, V.A.

Phase Rule and Equilibrium

Phase diagram of the system: stearic, palmitic and oleic acids. Dokl. An SSSR 86 no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, December 1952, Uncl.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICH, G. V., VOL'NOVA, V. A.

ACIDS, FATTY

Phase diagram of the system: stearic, palmitic and oleic acids. Dokl. AN SSSR 86 no. 2, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICH, R.D.

Data on the state of automatic translation; a survey.
Part 1. NTI no.5:35-43 '64. (MIRA 17:10)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEV, ALEKSANDR IVANOVICH

TORSKIY, Pavel Nikolayevich; RABICHEV, Aleksandr Ivanovich; CHEBOTAREV, Konstantin Aleksandrovich; KHEYFITS, S.Ya., otvetstvennyy redaktor; TYUTYUNIKOVA, N.A., redaktor izdatel'stva; NADEINSKAYA, A.A., tekhnicheskiy redaktor.

[Elimination of dust from coal mines] Obespylivanie ugol'nykh shaht. Moskva, Ugletekhizdat, 1956. 298 p. (MLRA 10:4)
(Coal mines and mining--Safety measures)
(Mine dusts)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

YERKIN, M.A., inzh.; RABICHEV, A.I., inzh.

New machine units for coal mining. Bezop.truda v prom. 4 no.8:22 Ag '60. (MIRA 13:8)

1. Nachal'nik upravleniya Rostovskogo okruga Gosgortekhnadzora RSFSR (for Yerkin). 2. Nachal'nik tekhnicheskogo upravleniya kombinata Rostovugol' (for Rabichev).
(Coal mining machinery)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEV, A.I., inzh.; TIKHOMIROV, A.G., inzh.

Industrial potentialities at the Artem No.2 mine. Ugol' Ukr. 10 no. 1:36 Ja '66. (MIRA 18:12)

1. Shakhtinskiy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

MINDELI, E.O., kand.tekhn.nauk; KUSOV, N.F., kand.tekhn.nauk; ODNOPOZOV, Z.A., gornyy inzhener; RABICHEV, A.R., gornyy inzhener; MAMONOV, V.V., gornyy inzhener; GROZIN, V.M., gornyy inzhener; OSNOVSKIY, P.V., gornyy inzhener; VORONIN, V.S., inzhener-shakhtostroitel'; MUKHIN, L.V., gornyy inzhener

Discussion on N.V. Stadnichenko, V.T. Nazarov's article "Advantageous diameter size for boreholes." Ugol' 35 no. 4:31-35 Ap '60. (MIRA 14:4)

1. Kombinat Rostovugol' (for Rabichev, Mamonov & Grozin). 2. Rostovskiy sovnarkhoz (for Osnovskiy & Voronin).
(Blasting) (Boring) (Stadnichenko, N.V.) (Nazarov, V.T.)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEV, L.Ya.

Electronarcosis in some diseases of the nervous system in children; preliminary report [with summary in French]. Zhur.nevr.i psikh. 57 no.2:225-228 '57. (MLRA 10:6)

1. Detskaya klinicheskaya bol'nitsa (glavnyy vrach M.I.Podergina) Leninskogo rayona, g.Molotova i klinika detskikh bolezney (zav. kafedroy - dotsent L.B.Krasik) Molotovskogo meditsinskogo instituta.
(SLEEP, ther. use
electronarcosis MS dis. in child.)
(NERVOUS SYSTEM, dis.
in child., ther., electronarcosis)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEV, L.Ya. (Kishinev)

Ten years' experience in electrosleep treatment of neuropsychic disorders in children. Zhur. nevr. i psikh. 65 no.7:1103 '65.
(MIRA 18:7)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

IVANOVA, Tat'yana Ivanovna; KIRILLOVA, Zinaida Alekseyevna; RABICHEV, Lev Yakovlevich; SKORBILINA, T.N., red.; POGOSKINA, M.V., tekhn. red.

[Insomnia; treatment and prevention] Bessonnitsa; lechenie i preduprezhdenie. Moskva, Medgiz, 1960. 36 p. (MIRA 15:1)
(INSOMNIA)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

PUTILIN, A.S.; RABICHEV, L.Ya.; KERNITSKIY, L.P.

Noncontact method of causing deep inhibition pulsating hypogenic stimulant). Trudy Kish.gos.med.inst. 13:23-26 '60.
(MIRA 16:2)

1. Laboratoriya kafedry fiziki Kishinevskogo gosudarstvennogo meditsinskogo instituta.
(INHIBITION) (SLEEP)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

[redacted], I. [redacted].

Metallurgy

Dissertation: "Study of the Reaction of the Interaction Between Oxides and Sulfides of Some Metals in the Solid Phase." Cand Tech Sci, Inst of Metallurgy, Acad Sci Ussr, Moscow, 1953.
(Referativnyy Zhurnal--Khimiya, Moscow, No 3, Feb 1954)

SO: SUM 213, 20 Sept 1954

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

137-58-4-6826

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 73 (USSR)

AUTHOR: Rabicheva, L. M.

TITLE: Treatment of Lead Dusts by Smelting with Soda (Pererabotka svintsovykh pyley plavkoy s sodoy)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13, pp 224-231

ABSTRACT: It is shown, on the basis of a number of specimens of Pb dust, that when dusts are smelted with soda and coal, up to 95% of the Pb is extracted in the form of the crude metal, and 80-90% of the Zn, As, and In go into an alkaline melt, while the Cd and Tl are sublimated. The consumption of soda varies from 25 to 50% of the weight of the dusts, depending on the composition thereof, and the amount of reducing agent required is 7 to 12% of the weight of the dust. The optimum process temperature is 1100°C; holding is for 15 min (with a 200 g charge sample). When the basic melt is subjected to aqueous leaching, the As [illegible] goes into solution almost entirely, whereas the Zn and Pb remain in the residue.

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G.S.

Card 1/1

1. Lead dusts--Processes 2. Soda--Applications

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

SOV/137-58-7-14601

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 94 (USSR)

AUTHORS: Shcherlin, I.D., Alyushin, Ye.I., Poletayev, G.S., Rabicheva, L.M., Slonimskiy, B.I.

TITLE: Electrothermic Recovery of Zinc at the Belovo Zinc Plant (Elektrotermicheskoye polucheniye tsinka na Belovskom tsinkovom zavode)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 21, pp 20-23

ABSTRACT: A pilot-plant installation having an electrothermic furnace of 150 kw power was employed to melt sintered Zn concentrates of the following % composition: Zn 57-60, Pb 0.7-1, Cu 2-2.3, Fe 6-9.4, Cd 0.1-0.15, CaO 0.9-1.9, MgO 0.7-0.8, SiO_2 3.4-4.7, S 0.3-1. The charge (composition of the raw mix: 60 kg sinter, 12-13.5 kg coke breeze with 12-20% moisture and 14-20% ash, and 5 kg calcined lime) was mixed in a drum mixer, calcined for 3 hours at 800-850°C in a reducing atmosphere, 15-20 kg return dross was added to it, and the whole was charged into the furnace through a bell-shaped sealed charging device. Smelting was at 68 v and 2250-2500 amps with graphited electrodes immersed 200 mm into the slag.

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SOV/137-58-7-14601

Electrothermic Recovery of Zinc at the Belovo Zinc Plant

the bath depth being 400 mm and the slag temperature 1350-1400°. Optimum process conditions were assured in reducing the basic quantity of Fe and the formation of Fe-Cu alloy in which the noble metals were concentrated. Slag was tapped once each shift, the Fe-Cu alloy once every 10-20 days. The Zn gases and fumes were taken off the furnace through an aperture in the side-wall and an inclined gas line in the condenser (C), lined with magnesite brick in its lower portion and a floor made of carbon blocks. The temperature in the gas line was sustained at 800-900° and in the C at 600-650°. The gases left the C at 350-400° and proceeded to a scrubber irrigated with water. The extraction of Zn as metal having the following inclusions (%): Pb 1-1.5, Cd 0.1-0.13, Fe 0.1-0.5, Cu 0.01-0.02, was 60-70%. 15-20% of the Zn was trapped in the scrubber as blue powder enriched with up to 0.6% Cd. Up to 30% of the Zn was in the returns in the form of dross precipitated in the C. The dross and blue powder contained 88-93% Zn. When the lower portion of the furnace was lined with magnesite and cooled with water to form a lining hardened on the wall, a furnace campaign lasted > 2 months. Losses of Zn in the slags came to 1.5-6%, and recovery of the Cu in the alloy was 90-98%.

1. Zinc--Recovery 2. Electric furnaces--Applications Ye.Z.

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

LAKERNIK, M.M.; RABICHEVA, L.M.

Determining the activity of ferrous oxide in slags of the system FeO - SiO_2 - CaO. Sbor. nauch. trud. GINTSVETMET no.15:5-16 '59. (MIRA 14:4)

(Activity coefficients)
(Iron oxides)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

SHCHERLIN, I.D.; ALYUSHIN, Ye.I.; POLETAYEV, G.S.; RABICHEVA, L.M.; SLONIMSKIY, B.I.

Studying the electrothermal method of preparing zinc and metal powder at the Belovo Zinc Plant. Sbor. nauch. trud. GINTSVETMET no.15:298-309 '59. (MIRA 14:4)
(Belovo (Kemerovo Province)--Zinc--Electrometallurgy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, L.M.; SLONIMSKIY, B.I.; LAZAREV, V.I.; ALYUSHIN, Ye.I.; POLETAYEV, G.S.; Prinimali uchastiye: TARASOV, Ye.I.; AFONIN, P.I.; SYROVEGINA, K.V., nauchnyy sotrudnik

Electrothermal method of obtaining zinc dust. Sbor. nauch. trud. Gintsvetmeta no.18:165-174 '61. (MIRA 16:7)

1. Nachal'nik elektrotermicheskoy ustanovki Belovskogo tsinkovogo zavoda (for Tarasov). 2. Starshiy master elektrotermicheskoy opytnoy ustanovki Belovskogo tsinkovogo zavoda (for Afonin). 3. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh metallov (for Syrovegina).
(Zinc—Electrometallurgy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, L.M.; LAZAREV, V.I.; ALYUSHIN, Ye.I.; POLETAYEV, G.S.;
Prinimali uchastiye: TARASOV Ye.I.; AFONIN, P.I.; SYROVEGINA,
K.V., nauchnyy sotrudnik; LEVIN, I.Kh., nauchnyy sotrudnik

Obtaining liquid zinc in the electric smelting process. Sbor.
nauch. trud. Gintsvetmeta no.18:175-186 '61. (MIRA 16:7)

1. Nachal'nik elektrotermicheskoy opytnoy ustanovki Belovskogo
tsinkovogo zavoda (for Tarasov). 2. Starshiy master elektroterми-
cheskoy opytnoy ustanovki Belovskogo tsinkovogo zavoda (for Afonin).
3. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh
metallov (for Syrovegina, Levin).
(Zinc—Electrometallurgy)
(Liquid metals)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, L.M.; SYROVEGINA, K.V.

Obtaining zinc oxide by the electrothermal method. Sbor. nauch. trud. Gintsvetmeta no.19:453-461 '62. (MIRA 16:7)

(Zinc—Electrometallurgy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

YEVDOKIMENKO, A.I.; KOTLYARENKO, V.V.; Prinimali uchastiye: RABICHEVA, L.M.; SYROVEGINA, K.V.; LEVIN, I.Kh.; GAVRILENKO, A.F.; RYABOV, A.V.; ALYUSHIN, Ye.I.; MARCHENKO, V.G.; BOLOTIN, L.G.; AFONIN, P.I.; SEVER'YANOV, G.N.

Heat exchange and the condensation of zinc vapor in drop condensers. Sbor. nauch. trud. Gintsvetmeta no.19:536-549 '62. (MIRA 16:7)

1. Sotrudniki Gosudarstvennogo nauchno-issledovatel'skogo instituta tsvetnykh metallov (for Rabicheva, Syrovegina, Levin, Gavrilenko, Ryabov). 2. Belovskiy tsinkovyy zavod (for Alyushin, Marchenko, Bolotin, Afonin, Sever'yanov).

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

LAKERNIK, M.M.; RABICHEVA, L.M.

Investigating the kinetics of the reduction of metals from slags and from sinter. Sbor. nauch. trud. Gintsvetmeta no.19: 647-660 '62. (MIRA 16:7)

(Nonferrous metals—Metallurgy)
(Iron—Metallurgy) (Slag)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, L.M.; MARCHENKO, V.G.; SYROVEGINA, K.V.; LEVIN, I.Kh.; FEL'METSGER, V.I.

[Investigating and introducing the electrothermic method of producing zinc] Issledovanie i vnedrenie elektrotermicheskogo sposoba polucheniia tsinka. Moskva, 1963. 80 p. (MIRA 17:5)

1. Moscow. TSentral'nyy institut informatsii tsvetnoy metallurgii.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

PINAYEV, A.K.; FEL'METSGER, V.I.; POLETAYEV, G.S.; MARCHENKO, V.G.; Prinimali uchastiye: RABICHEVA, L.M.; SYROVEGINA, K.V.; AFONIN, P.I.; SHNAYDER, I.F.; BOLOTIN, L.G.

Electrothermic method of obtaining zinc. TSvet.met. 36 no.2: 25-30 F '63. (MIRA 16:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh metallov (for Rabicheva, Syrovegina, Levin). 2. Belovskiy tsinkovyy zavod (for Afonin, Shnayder, Bolotin).
(Zinc—Electrometallurgy)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

MESHCHANINOVA, V.I.; VINOGRADOVA, M.A.; RABICHEVA, L.M.; BABINA, I.V.; NIKITINA, I.S.; SYROVEGINA, K.V.; MYZENKOV, F.A.

Developing a flow sheet for the dressing of zinc fluorite ores from the "Voznesenskoye" deposit and determining the behavior of fluorine in the process of zinc recovery from concentrates. Sbor. nauch. trud. Gintsvetmeta no.23: 165-181 '65. (MIRA 18:12)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, N. (g.Shakhty, Rostovskaya oblast')

Milestones of a great journey. Sov.shakht. 11 no.11:10-11 N '62. (MIRA 15:11)

(Donets Basin—Coal mines and mining)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABICHEVA, N.

Plows have been adopted. Sov.shakht. 13 no.1:14-15 Ja '64.
(MIRA 17:3)

1. Neshtatnyy korrespondent "Sovetskogo shakhtera", g. Shakhty.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

PECHENNIKOV, R.Ya.; RABICHEVA, S.G.

Determining the values of principal parameters of gas pipelines.
Gaz. prom. no. 7:37-43 Jl '58. (MIRA 11:7)
(Gas--Pipelines)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

PECHENIKOV, R.Ya.; RABICHEVA, S.G.

Reducing the working pressure and increasing the diameter of gas mains. Gaz.prom. 5 no.6:44-47 Je '60. (MIRA 13:6)

(Gas, Natural—Pipelines)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

GORODETSKIY, V.I.; PECHENIKOV, R.Ya.; RABICHEVA, S.G.

Increasing the capacity of gas pipelines by providing them with insertions or parallel sections. Gaz. prom. 7 no.2:36-40 '62. (MIRA 17:6)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

GORODETSKIY, V.I.; PECHENIKOV, R. Ya.; RABICHEVA, S.G.

Optimal parameters of multiple gas pipelines. Gaz. prom. 7 no.4:48-49'62 (MIRA 17:7)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

PECHENIKOV, R.Ya., inzh.; RABICHEVA, S.G., insh.

Technical and economic calculations for main gas pipelines. (MIRA 15:12)
Stroi. truboprov. 7 no.11:12-14 N '62.

1. Ukrainskiy gosudarstvennyy institut po proyektirovaniyu predpriyatiy po dobyche prirodnykh gazov, Kiyev.
(Gas, Natural--Pipelines)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 41345-65 EWG(j)/EWT(m)
ACCESSION NR: AP5005336 S/0241/64/009/009/0075/0080

AUTHOR: Rabich-Shcherbo, M. I. (Professor, Head of biochemistry department); Prokopenko, L. G.

TITLE: Immunization as a means of biological protection of the organism against the effects of ionizing radiation

SOURCE: Meditsinskaya radiologiya, v. 9, no. 9, 1964, 75-80

TOPIC TAGS: industrial medicine, medical experiment, immunology, radiation sickness

Abstract: Experiments were conducted with 180 rabbits to study the degree of protection of previous immunization as a function of the nature of the antigen, the radiation dose, the correspondence between the intervals of immunization and the period of exposure, and site of inoculation. It was observed that previous immunization greatly stimulates formation of antibody to a second antigen introduced after irradiation and alleviates radiation sickness. The protective effect of previous immunization is localized in the lymph nodes forming antibody to the antigen administered before exposure. General non-specific benefit occurs only after double or triple inoculation of antigen. Orig. art. has 4 graphs and 3 tables.

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 41345-65
ACCESSION NR: AP5005336

ASSOCIATION: Kafedra biokhimii Kurskogo meditsinskogo instituta (Department of Biochemistry, Kursk Medical Institute)

SUBMITTED: 29Mar63 ENCL: 00 SUB CODE: LS

NO REF SOV: 006 OTHER: 008 JPRS

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIEJ, Jozef, doc.,mgr.,inz.

Double rotor motor in a driving system with continuous speed control. Przegl elektrotechn 37 no.6:247-249 '61.

1. Politechnika Szczecinska.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

[illegible], L.

A device for studying the hysteresis loop with the help of an oscillograph. p. 401
The works of the Institute of Industrial Telecommunication. p. 423

[illegible] vol. 22, no. 12, Dec. 1955

Poland

[illegible] vol. 5, no. 10 Oct. 1956

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIEJ, Z.; BADIAN, L.

Differential bridges for the study of properties of dielectrics in strong electric fields. p. 61.
(Technika Lotnicza, Vol. 7, No. 20, 1957, Krakow, Poland)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIJ, Wlodzimierz

The need of developing the production of concentrated fodder.
Przegl drobn wytwor 12 no.1:14 Ja '62.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 12002-66 EWT(1)/EWA(m)-2 IJP(c) AT

ACC NR: AP5022858 SOURCE CODE: UR/0051/65/019/003/0319/0325

AUTHOR: Veldre, V. Ya.; Lyash, A. V.; Rabik, L. I. 41,55 41,55 41,55

ORG: none

51
B

TITLE: Excitation of neon atoms by electron impact

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 319-325

TOPIC TAGS: neon, wave function, excitation cross section, electron collision, electron shell

ABSTRACT: Since there are at present no published data on the total effective cross sections for the excitation of neon atoms by electron impact, with account taken of the symmetry of the atomic wave functions, the authors attempt to evaluate the effect of symmetrization of the atomic wave functions in the Born approximation. The total effective excitation cross sections for the neon atoms are obtained under the assumption of LS coupling between the atomic electrons in all the configurations. The choice of a suitable coupling between the optical electron and the electrons of the atomic core was also investigated, since this question has not been treated in detail in the past. Since no Hartree-Fock wave functions are available, the approximate analytical one-electron wave functions for the electron shells were used in the calculations. The total effective excitation cross sections of the unexcited and excited neon atoms were computed for electrons of various energies, and for all terms of the configurations (γ)2p, (γ)3s, (γ)3p, (γ)4s, (γ)3d, (γ)4p, and (γ)5s. Plots of the re-

Card 1/2 UDC: 539.186.1 : 546.292

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 12002-66
ACC NR: AP5022858

sults are presented for the transitions that are most representative of the behavior of the total cross section. Although the calculations were made under the assumption of LS coupling for all the configurations of the neon atom, it is shown that the type of coupling of the momenta greatly changes after the excitation, thereby decreasing the total effective cross sections of the unexcited atoms. Orig. art. has: 6 figures, 11 formulas, and 2 tables.

SUB CODE: 20/ SUBM DATE: 11May64/ ORIG REF: 003/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 3384-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5023287 UR/0371/65/000/004/0003/0012 51 47 B

AUTHOR: Veldre, V. (Veldre, V. Ya.); Lasa, T. (Lyash, A. V.); Rabiks, L. (Rabik, L. L.); Fridkins, L. (Fridkin, L. A.)

TITLE: Total effective cross sections of the excitation of atoms by electron impact in the classical approximation

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1965, 3-12

TOPIC TAGS: collision cross section, excitation cross section, neon, argon, krypton, xenon

ABSTRACT: The problem of the collision of two electrons one of which is revolving around a nucleus, represents the three body problem and can be solved only with great difficulty. Therefore, practical calculations are made by considering the corresponding two body problem. The present article is an attempt to increase the accuracy of the solution within the framework of the two body problem. A table gives a comparison of the excitation cross sections obtained for the neon atom in different approximations and includes a comparison of experimental and

Card 1/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 3384-66

ACCESSION NR: AP5023287

4

theoretical data. The excitation cross sections of neon, argon, krypton, and xenon are given in atomic units. Orig. art. has: 4 formulas and 7 tables

ASSOCIATION: Institut fiziki AN Latv. SSR (Institute of Physics, AN LatSSR)

44,55

SUBMITTED: 26Feb65 ENCL: 00 SUB CODE: NP

NR REF SOV: 006 OTHER: 006

Inert gases 27

Card 2/2 hd

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 11620-66 EWT(1)
ACC NR: AP5025289 SOURCE CODE: UR/0051/65/019/004/0474/0479

AUTHOR: Veldre, V. Ya.; Rabik, L. L.

ORG: none

TITLE: Calculation of excitation cross sections of excited hydrogen atoms in the Born approximation

SOURCE: Optika i spektroskopiya, v. 19, no. 4, 1965, 474-479

TOPIC TAGS: electron transition, hydrogen, excitation cross section, excited electron state, wave function

ABSTRACT: Using a BESM-2 computer and the formula

$$\sigma_{n,0\to n,l_1}=\frac{8\pi}{k^2}\int_{k_m-k_n}^{k_m+k_n}\frac{1}{K^3}\left[(2l_2+1)\,c_{l_1}(00,\,l_20)\times\right.$$
$$\left.\times\int_0^\infty R_{n,0}(r_1)\,R_{n,l_1}(r_1)\,j_{l_1}(Kr_1)\,r_1^2\,dr_1\right]^2 dK,$$

Card 1/2 UDC: 539.186.001.1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 11620-66
ACC NR: AP5025289

the authors calculated the total effective excitation cross sections of hydrogen atoms as functions of $\frac{E_m^{el}}{\Delta E}$ (where E_m^{el} is the energy of the incident electron in the initial state) for the transitions 1s → ns, 6s → ns, 1s → np, and ns → (n + 1)s, where n = 6-11. The results enabled them to identify the main features of the total effective excitation cross sections given by the Born approximation: (1) the closer the cross section maximum to the excitation threshold, the slower the rate at which the cross sections decrease with increasing $\frac{E}{\Delta E}$; (2) the position of the maximum is determined mainly by the initial state of the atom; (3) the value of the cross section is determined mainly by the final state of the atom; (4) for a given n (10) in the case of ns → (n + 1)s transitions, the character of the dependence of the cross section on $\frac{E}{\Delta E}$ changes considerably. It is postulated that the consideration of distortion of the atomic wave functions by the Coulomb field of the incident and outgoing electrons will shift the cross section maximum away from the threshold and will lower its value. This may lead to substantial changes in cross sections in the excitation of excited atoms. Orig. art. has: 4 figures and 10 formulas.

SUB CODE: 20 / SUBM DATE: 25May64 / ORIG REF: 003 / OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIKHANUKAYEVA, Ye. S., Cand Geol-Min Sci -- (diss) "Lithology of deposits of the lower series of the cretaceous system of the southeastern part of the Western Siberian Lowland as possible collectors of petroleum." Mos, 1958. 15 pp (Acad Sci USSR, Inst of Petroleum), 120 copies (KL, 18-58, 96)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

KOLGINA, Lyudmila Pavlovna; OR'YEV, Leonid Grigor'yevich; RABIKHANUKAYEVA, Yelizaveta Semenovna; CHERNIKOV, Oleg Anatol'yevich; CHEPIKOV, K.R., otv. red.; PERSHINA, Ye.G., red. izd-va; ROMANOV, G.N., tekhn. red.

[Lithology and distribution characteristics of reservoir rocks of the Jurassic and lower Cretaceous of the West Siberian Plain] Litologiia i zakonomernosti razmeshcheniia porod-kollektorov v otlozheniiakh iury i nizhnego mela Zapadno-Sibirskoi nizmennosti. Moskva, Izd-vo Akad. nauk SSSR, 1961. 123 p. (MIRA 14:7)

1. Chlen-korrespondent AN SSSR (for Chepikov).
(West Siberian Plain—Petrology)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

ZADKOVA, I.I.; IVANOVSKAYA, A.V.; RABIKHANUKAYEVA, Ye.S.

Sedimentary formations of the upper Cretaceous and Paleogene in the Vakh Basin. Geol.i geofiz. no.5:39-51 '61. (MIRA 14:6)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Vakh Valley--Geology, Stratigraphic)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

NAGOVITSYN, D.F.; RABI[illegible]VICH, D.M.

Research at the Novotagilka Metallurgical Plant. Stal' 17 no.7:668-670 Jl '57. (MLRA 10:8)

(Novotagilka--Metallurgical research)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIKOVICH, I. M.

4E2c

2

Automation of Certain of the Units of the [Vysokogorsk] Sinter Plant. I. M. Rabikovich. (*Stal'*, 1967, (5), 385–388). Automatic burden distribution between 2 stands, maintenance of bed thickness, control of belt speed, automatic stopping of the conveyor when necessary and its protection from damage by hot returns are described.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

SOV/3-58-11-35/38

AUTHORS: Firsov, L.V., Candidate of Geological-Mineralogical Sciences; Kartashov, I.P., Candidate of Geographical Sciences; Panov, A.A.; Rabil', K.M.; Sholmin, V.Ya.; Strizhenko, N.D.

TITLE: An Aid Required by Both Students and Production Workers (Posobiye, neobkhodimoye i studentam i proizvodstvennikam)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 11, pp 92 - 94 (USSR)

ABSTRACT: This is a review of the book by Professor N.I. Buyalov, "Structural Geology". There is 1 Soviet reference.

ASSOCIATION: Sovet narodnogo khozyaystva Magadanskogo administrativnogo ekonomicheskogo rayona (National Economy Council of the Magadan Administrative Economic District)

Card 1/1

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

GRACHEVA, N.S.; RABIL', M.Ya.

Dynamics of changes in the fundus oculi in otogenous abscesses of the brain. Vest. otorin. 21 no.2:101-102 Mr-Ap '59. (MIRA 12:4)

1. Iz kliniki bolezney ukha, gorla i nosa Altayskogo meditsinskogo instituta i Otolaringologicheskogo otdeleniya Altayskoy krayevoy bol'nitsy.
(EYE--DISEASES AND DEFECTS) (BRAIN--ABSCESS)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIL', M.Ya.

Condition of the sight organ in Barnaul schoolchildren. Vest.oft. 72 no.5:51-52 S-O '59. (MIRA 13:3)

1. Krayevoy protivotrakhmoatoznyy dispanser Barnaula, Altayskiy kray. (VISION)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIL', V.B.

Present state and development of mining systems at the Mirgalimsay mine. Gor.shur. no.8:23-31 Ag '60. (MIRA 13:8)

1. Glavnyy inzhener Mirgalimsayskogo rudnika, g.Kentau, Yuzhno-Kazakhstanskoy oblasti.
(Kazakhstan--Nonferrous metals)
(Mining engineering)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIL', V.B., inzh.

Anchor bolting in the Mirgalimsay Mine. Bezop.truda. v prom. 4 no.6: 12-13 Je '60. (MIRA 14:3)
(Mirgalimsay—Mine roof bolting)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, A.E.

Compile a bibliography of the U.S.S.R. soils by zones. Pochvovedenie no.9:111-112 S '60. (MIRA 13:9)
(Bibliography--Soils)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

SYCHENIKOV, I.A.; RABIN, A.G.

Method for releasing tension on a circular arterial suture in experiment. Eksper. khir. 5 no.4:43-47 Je-Ag '60. (MIRA 13:12)
(ARTERIES--SURGERY) (SUTURES)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

KSENZOV, D.G.; RABIN, A.G.

Appendicitis related to ascariasis in children. Sov.med. 25 no.12: 130-132 D '61. (MIRA 15:2)

1. Iz khirurgicheskogo otdeleniya (zav. M.P.Sanatova) detskoy bol'nitsy imeni Dzerzhinskogo (ispolnyayushchiy obyazannosti glavnogo vracha F.F.Malomuzh), Moskva.
(APPENDICITIS) (ASCARIDS AND ASCARIASIS)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, A.G.; DURINYAN, R.A.

Function of the second somatosensorial zone of the cortex.
Dokl. AN SSSR 153 no.4:978-980 D '63. (MIRA 17:1)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR.
Predstavleno akademikom V.N. Chernigovskim.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

DURINYAN, R.A.; RABIN, A.G.

Interaction mechanisms of specific and nonspecific brain structures. Dokl. AN SSSR 153 no.5:1213-1215 D '63. (MIRA 17:1)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR. Predstavleno akademikom V.N. Chernigovskim.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

DURINYAN, R.A.; RABIN, A.G.

Some morphophysiological principles of controlled reactions of the so-called nonspecific cerebral structures. Trudy Inst.norm. i pat.fiziol. 7:41-42 '64. (MIRA 18:6)

1. Laboratoriya fiziologii afferentnykh sistem (zav. - kand.med nauk R.A.Durinyan) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 56034-65

ACCESSION NR: AP5018363 UR/0020/64/159/002/0466/0468

AUTHOR: Rabin, A. G. 11 B

TITLE: Effect of the cooling of the somatosensory cortex on the response activity of the thalamic nucleus

SOURCE: AN SSSR. Doklady, v. 159, no. 2, 1964, 466-468

TOPIC TAGS: brain, encephalology, cooling

ABSTRACT: Local cooling of the second somatosensory region leads to a drop in the potential prod ced by afferent stimulation in reticular structures. Since the response of the neurons of the thalamic nucleus is largely determined by the activity level of the reticular formation, it may be assumed that cooling of the somatosensory cortex reduces the responses activity of

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

...of the positive phase

L 56034-65
ACCESSION NR: AP5018363

remaining unchanged. Thus, cooling the cortex increases the excitability of these neurons of the thalamic nucleus, owing to the decrease in the activity of the reticular formation, which is responsible for the appearance of the

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

Orig. art. has: 2 figures, 1 graph.

ASSOCIATION: Institut normal'noy i patologicheskoy fiziologii Akademii meditsinskikh nauk SSSR (Institute of Normal and Pathological Physiology, Academy of Medical Sciences SSSR)

SUBMITTED: 07May64 ENCL: 00 SUB CODE: LS, TD

NR REF SOV: 004 OTHER: 007 JPRS

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, I.I.

Turbo-vortex spark arrester. Mekh. sil'. hosp. 9 no. 7:31 Jl '58.
(MIRA 11:8)

1. Upravlinnya pozhezhnoi okhoroni Ministerstva vnutrishnikh sprav URSR.
(Sparks)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, M.O.; SHEPELYAKOVSKIY, K.Z.

Surface hardening of malleable ferrite cast iron with high-frequency heating. Lit.proizv. no.9:10-12 D'54. (MLRA 8:2)
(Cast iron--Hardening)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

ASSONOV, Aleksandr Danilovich,; SHEPELYAKOVSKIY, Konstantin Zakharovich,; LANKIN, Petr Aleksandrovich,; YAITSKOV, S.A., inzh.; SHKLYAROV, I.N., inzh.; RABIN, M.O., inzh.; SHNYUSHKIN, N.V.; ZHIVOTOVSKIY, A.N.; BORISOV, N.I.; SHMYKOV, A.A., doktor tekhn. nauk, red.; LOZINSKIY, M.G., doktor tekhn.nauk, retsenzent,; MODEL', B.I., tekhn.red.

[Gas cementation with induction heating] Gazovaia tsementatsiia s induktsionnym nagrevom. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 87 p. (MIRA 11:12)
(Cementation(Metallurgy))

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, M.O.; ORLOVSKIY, A.G.

Technology of electric induction heat treatment. Metalloved. i term. obr. met. no.6:27-30 Je '63. (MIRA 16:6)

(Steel, Automobile--Heat treatment)
(Induction heating)

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013438

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

RABIN, N.V

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1534
AUTHOR PARFANOVIČ, D.M., RABIN, N.V., SEMČINOVA, A.M.
TITLE The Interaction of Nitrogen Nuclei with the Nuclei of a Photo-emulsion.
PERIODICAL Žurn.eksp.i teor.fis, 31, fasc.2, 188-193 (1956)
Issued: 5.10.1956

The nitrogen nuclei used for the irradiation of photo plates were accelerated with a 150 cm cyclotron. The ions, which were accelerated up to 4-5 MeV, lost their remaining 4 electrons to the atoms of the gas remaining in the cyclotron chamber and were then accelerated up to 120 - 130 MeV as ions with a quadruple charge. The energy spectrum of the nitrogen ions extended from 0 to 130 MeV. Besides, the bundle consisted of ions with different charges. The bundle emitted from the cyclotron was made monochromatic by means of a magnetic analyzer.
The energy dependence of the nitrogen nuclei was determined by means of the magnetic analyzer. The photoplates were irradiated with nuclei of different energies and the range of the nuclei was measured under the microscope. On an area of 25 cm^2 198 cases of interaction accompanied by the emission of charged particles was found to occur. It is not possible to say with accuracy with what element the nitrogen nucleus enters into interaction. It is, however, possible to distinguish between interaction with light (C,O) and heavy (Br.Ag) nuclei. On the occasion of a collision of the nitrogen nucleus with silver- or Br-nuclei or with a light nucleus the range of the compound nucleus is 2-5 μ and 10-15 μ respectively.

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Žurn.eksp.i teor.fis,31, fasc.2,188-193 (1956) CARD 2 / 2 PA - 1534

In the case of the aforementioned 198 interactions there were 70 in which heavy, and 128 in which light nuclei were concerned. The photo plates made it possible to distinguish the traces of protons, α-particles, and heavy fragments, but an exact identification of these fragments was not possible. It is of importance to note that α-particles predominate. On an average, twice as many α-particles as protons were produced on the occasion of all spallations (of both light and heavy nuclear targets). On the occasion of interaction of nitrogen nuclei with carbon and oxygen an emission of heavy fragments was found to occur in 25 % of the cases (as α-particles). Heavy fragments were emitted in only three of the 70 interactions with Br and Ag. In the angular distribution of α-particles forward directions predominate. In the energy spectra the large number of α-particles with low energy is of importance.

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120-2-31/37

AUTHOR: Vaysenberg, A. O., Smirnitskiy, V. A., Rabin, N. V.

TITLE: A Microscope Stage for Particle Scattering Measurements in Nuclear Photoemulsions. (Mikroskopnyy Stol dlya Izmereniya Rasseyaniya Chastits v Yadernykh Fotoemul'-siyakh.)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No. 2, pp. 112 - 114 (USSR).

ABSTRACT: The development of the photoemulsion cameras has lead to an increase in the track lengths which can be observed, an increase in the statistical accuracy of scattering measurements, and the independence of experimental results from the degree of development of the emulsion. Among the factors which determine the accuracy of scattering measurements, the most important are those due to the noise which exists because of the finite grain size and intervals between them, to the noise introduced by distortion, and to the noise due to the microscope stage, the longitudinal displacement of which is accompanied by small transverse displacements equivalent to scattering. It was required to have a microscope bench with longitudinal movement of a few cm and with not more than 0.01 micron of the transverse displacement. The present type of the "sprung action" microscope bench is due to Cosyns (Ref. 1) and this

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120-2-31/37

A Microscope Stage for Particle Scattering Measurements in Nuclear Photoemulsions.

principle is also used in the KOPHЦKA M-52 bench. The bench has the following drawbacks: springs have to be accurately calibrated, it is temperature and load sensitive and its noise increases at large displacements. Since a glass surface can be prepared to a very great accuracy, the authors have constructed, and now describe, a microscope bench using two accurately prepared glass plates as guides. The action of the bench can be clearly seen from Figure 1, where 1 is a heavy steel plate with two steel blocks covered by the above glass plates acting as buffers and guides. The "noise" of the bench has been measured by means of the Michelson interferometer with results given in Figure 3, where the abscissa represents the magnitude of the displacement and the ordinate the mean value of the second order differences (curve A), which represents a "noise" of 0.005 micron for the displacement of 50 to 100 microns. In the same figure curve B represents the noise of the KOPЧЦKA-M 52 of Gottstein (Ref. 3). Two photographs of the bench assembly and two graphs of experimental results are given. There are three references, none of which is Slavic.

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A Microscope Stage for Particle Scattering Measurements in Nuclear Photoemulsions.

SUBMITTED: November, 14, 1956.

AVAILABLE: Library of Congress.

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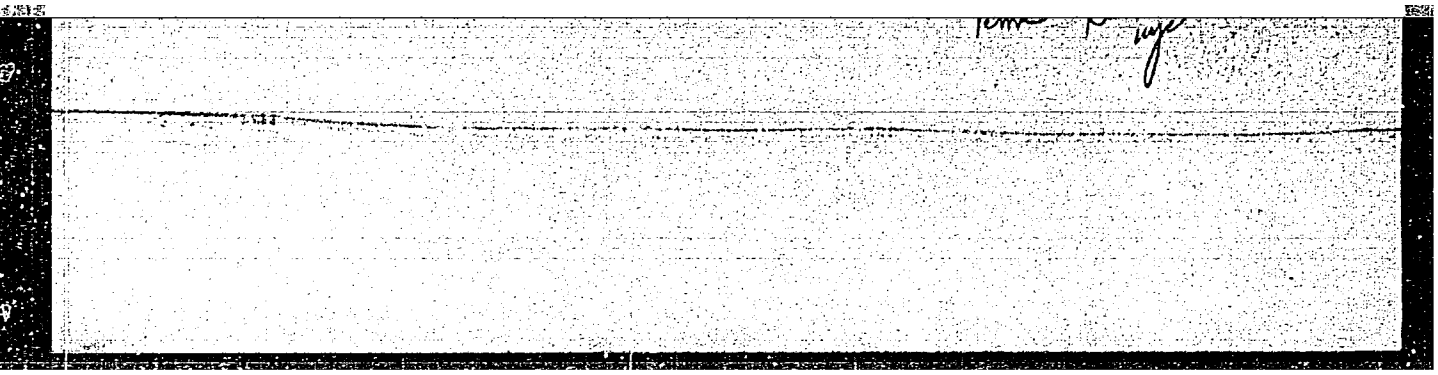

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24(5)

AUTHORS: Vaysenberg, A. O., Smirnitskiy, V. A., Kolganova, E. D., Minervina, Z. V., Pesotskaya, Ye. A., Rabin, N. V.

SOV/56-35-3-13/61

TITLE: Angular Correlations for Positrons of Low Energy in π^+-μ^+-e^+ Decay (Uglovaya korrelyatsiya dlya pozitronov maloy energii pri π^+-μ^+-e^+-raspade)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 3, pp 645 - 648 (USSR)

ABSTRACT: After the discovery of the nonconservation of parity with weak interaction, several groups of research scientists investigated the energy dependence of the angular correlation of positrons in π^+-μ^+-e^+ decay (Refs 1-3); according to Mukhin, Ozerov and Pontekorvo (Ref 4) the connection between asymmetry and energy corresponds to the laws of the two-component theory, according to which the formula (1)

$$\cos\vartheta = \frac{\alpha\lambda}{3}\,\frac{2\varepsilon - 1}{3 - 2\varepsilon}$$

applies, where ϑ denotes the angle

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between the direction of myon spin and the direction of the emission of the positron in μ^+-e^+ decay. ε denotes the energy of positrons in units of its maximum energy, λ-a parameter of the theory (which is determined from the ratio between interaction constants), α - a coefficient which shows what part of myons is polarized at the instant of decay. In the present paper the correlation was not investigated in space, but in the plane, so that the formula used here for cos ϑ is distinguished from (1) by the fact that the first factor of the right side is $\alpha\lambda/2$. A photoemulsion plate NIKFI-R of 400μ thickness was used for the investigations; it was exposed to a π^+-meson beam of the synchrocyclotron of the OIYaI (Obyedinennyy institut yadernykh issledovaniy = United Institute for Nuclear Research)(cf.also reference 2). Results are, essentially, given in two tables.

1) Series of measurements, 1099 positron traces:

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Angular Correlations for Positrons of Low Energy in $\pi^+-\mu^+-e^+$ Decay

ϑ		ε: 0-0,3	0,3-0,6	0,6-0,9	0,9
0-180°	number of particles n	46	333	440	280
0 - 60°	$\overline{\cos\vartheta}_+ \; 0{,}7/\sqrt{n}$	+0,18±0,10	0,00±0,04	-0,05±0,03	-0,09±0,04
	n	34	231	300	198
120-180°	$\overline{\cos\vartheta} \pm 0{,}85/\sqrt{n}$	0,30±0,15	0,00±0,06	-0,06±0,05	-0,16±0,06

2.Series of measurements,8000 $\pi^+-\mu^+-e^+$ decay events, of which 200 with $\varepsilon < 0{,}3$

ϑ	ε 0-0,3	0,3-0,6
0-180° n	201	499
$\overline{\cos\vartheta}$	0,07±0,05	0,01±0,03
0 - 60° n	141	337
120-180° $\overline{\cos\vartheta}$	0,13±0,07	0,01±0,05

(ϑ is the angle between the direction of emission of the myon and that of the positron). Similar measurements have recently been carried out by Pershin et al (Ref 7) in the propane-bubble-chamber. The authors in conclusion thank A.I.Alikhanov for his interest in this work

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and A.P.Birzgal for calculations. Moreover, they express their gratitude to the collaborators of the testing group for evaluating a large number of plates.
There are 2 tables and 7 references, 5 of which are Soviet.

SUBMITTED: May 31, 1958

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

21(7) SOV/56-36-6-8/66

AUTHORS: Vaysenberg, A. O., Rabin, N. V., Smirnitskiy, V. A.

TITLE: The Depolarization of μ^+-Mesons in Nuclear Emulsions (Depolyarizatsiya μ^+-mezonov v yadernoy emul'sii)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 6, pp 1680 - 1686 (USSR)

ABSTRACT: The present paper intends to determine exact values of the asymmetry coefficients in the spatial distribution of positrons from the reaction $\pi^+ - \mu^+ - e^+$ in nuclear emulsions; the author carried out a comparative investigation of ordinary and double-diluted NIKFI-R-emulsions as well as Ilford G-5; among other things, they investigated 9101 π^+-μ^+-e^+-decays in NIKFI-R emulsions; irradiation was carried out on the synchrocyclotron of the OIYaI (Joint Institute of Nuclear Research). The following decays were selected for investigation: 1) such having an electron trace length of ≥ 1 mm, 2) with a distance of the vertex of the decay from the emulsion surface of the glass $>100\mu$. Table 1 shows the angular distribution of the measured decays for $0<\vartheta<180^0$ (ϑ is the angle between the primary μ-trace and the e^+-trace in the emulsion plane). The asymmetry coefficient a may be determined either from the

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average value cos ϑ or from the forward-backward difference. It is found, with correction, that a= -0.66 ± 0.018. Gurevich et al.(Ref 4) obtained from an analysis of 8990 decays in NIKFI-R a= -0.092 ± 0.018, Ivanov and Fesenko (Ref 5) obtained the value a= -0.065 ± 0.041; for NIKFI-R an average value of a= - 0.077 ± 0.012 is thus obtained. Table 2 compares the a-values in Ilford G-5 and NIKFI-R obtained from various publications; the mesons originate partly from cosmic radiation, and partly from accelerators. For Ilford G-5 the average values a= -0.139 ± 0.014 (from all data), a= 0.133 ± 0.018 (cosmic radiation) and a= 0.148 ± 0.021 (accelerators) are obtained. In all cases the NIKFI-R-emulsions have a considerably smaller asymmetry coefficient. The ratio between the depolarizability of NIKFI and Ilford is found to amount to $(0.139\pm0.014)/(0.077\pm0.012)= 1.81\pm0.33$. Further, the results obtained by investigating doubly-diluted Ilford G-5 and NIKFI-R emulsions are published. For the former other authors obtained a= -0.190±0.033 for the latter -0.136±0.037 and -0.118±0.041, which results in an average value of -0.127±0.028. The ratio between the a-values of doubly-diluted NIKFI (with gelatin) and normal NIKFI is found to amount to 1.65 ± 0.40. Further

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data concern a-measurements in NIKFI-R in strong magnetic fields. The following was obtained: a(2500 G)= -0.186±0.020 and a(17000 G) =-0.28±0.02. The authors finally thank A. I. Alikhanov and I. I. Gurevich for their interest and discussions, further Ye. A. Pesotskaya and Z. V. Minervina for their help in evaluating results, B. A. Nikol'skiy for his assistance in irradiating the emulsions in the magnetic field, and D. M. Samoylovich, in whose laboratory the emulsion layers were developed. There are 3 tables and 21 references, 7 of which are Soviet.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute for Theoretical and Experimental Physics of the Academy of Sciences, USSR)

SUBMITTED: January 7, 1959

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21·(7)

AUTHORS: Vaysenberg, A. O., Smirnitskiy, V. A., Kolganova, E. D., Rabin, N. V.

SOV/56-37-1-63/64

TITLE: The Energy Dependence of the Spatial Asymmetry of Positrons in $\pi^+ \to \mu^+ \to e^+$ Decay (Zavisimost' ot energii prostranstvennoy asimmetrii pozitronov pri $\pi^+ \to \mu^+ \to e^+$-raspade)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 1, pp 326 - 328 (USSR)

ABSTRACT: The present "Letter to the Editor" is a continuation of a number of other works (Refs 1-3). The asymmetry coefficient a of this reaction was determined according to the equation $dN = (1+a\cos\vartheta)d\Omega$ (ϑ angle between the direction of the departure of muon and electron, $d\Omega$- solid angle element) as amounting to 0.077 ± 0.012 for NIKFI-R emulsions; a increases to 0.28 ± 0.02 if the emulsion is located in a magnetic field of 17 kG. The data are mean values obtained by measurements of the entire spectrum. Investigations of the energy dependence of a were carried out by means of a NIKFI-R photoemulsion pile in the perpendicular magnetic field of 17 kG; irradiation was carried out on the synchrocyclotron of the OIYaI (Joint Institute of Nuclear

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The Energy Dependence of the Spatial Asymmetry of Positrons in $\pi^+ \rightarrow \mu^+ \rightarrow e^+$ Decay

SOV/56-37-1-63/64

Research). Positron energy was measured by means of the method of multiple scattering, for which purpose the microscopes Kornitska MS-2 and MBI-9 were used. Part of the measurements was carried out by means of a semiautomatic device. 565 traces were selected according to certain criteria, which are enumerated. Under these conditions it holds that $a(\mathcal{E}) = 1.27 \frac{N_f - N_b}{N_f + N_b} \pm \frac{(1.27^2 - a^2(\mathcal{E}))}{\sqrt{N_f + N_b}}$, where N_f denotes the number of forward decays, N_b the number of backward decays. The N_f and N_b are given in a table for 10 energy intervals between 0 and 1.1. A diagram shows the dependence of $a(\mathcal{E})$ on the positron energy $\mathcal{E}$. The drawn-in curve represents $a(\mathcal{E})$ according to the theory of the two-component neutrino: $a(\mathcal{E}) = 3.0.28(1-2\mathcal{E})/(2\mathcal{E}-3)$; (here 0.28 ± 0.02 is the value of the asymmetry coefficient at 17 kG). The dotted curves show the energy dependence of a obtained from the statistical errors of energy measurement and from the bremsstrahlung in experimental conditions (upper curve: 10% dispersion

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The Energy Dependence of the Spatial Asymmetry of Positrons in $\pi^{+}\rightarrow\mu^{+}\rightarrow e^{+}$ Decay SOV/56-37-1-63/64

and 4 mm track length, lower curve: 20% dispersion and 1 mm track length). The differential spectrum of $a(\mathcal{E})$ obtained expresses the rapid growth with energy and agrees with the two-component neutrino theory. In an earlier paper (Ref 2) the authors also worked with NIKFI-R photoemulsions ($a = -0.077 \pm 0.012$), and within the energy range of 0 - 0.3 they obtained the average value of $a = +0.14 \pm 0.10$. (In the case of the measurements published, the measured a-values are all within the positive range, and the theoretical curves intersect the $\mathcal{E}$-axis at about 0.4 - 0.5). The authors finally thank Z. V. Minervin and Ye. A. Pesotskaya, and D. M. Samoylovich and B. A. Nikol'skiy for taking part in the experiments. There are 1 figure, 1 table, and 3 Soviet references.

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

S/120/60/000/005/034/051
E032/E314

AUTHORS: Kolganova, E.D. and Rabin, N.V.

TITLE: Measurement of the "Noise" of the MBI-9 (MBI-9) Microscope

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 5, p. 134

TEXT: The present paper reports measurements on the MBI-9 microscope, which were designed to determine whether this microscope can be used to measure multiple Coulomb scattering of charged particles in photographic emulsions. Measurements were made of the stage noise $\bar{\varepsilon}_{st}$ and a total noise $\bar{\varepsilon}_{tot}$ defined by

$$\bar{\varepsilon}^2_{tot} = \bar{\varepsilon}^2_{st} + \bar{\varepsilon}^2_{reading} + \bar{\varepsilon}^2_{grain}$$

for second and third differences.
The Michelson interferometer was used to determine the stage noise both for horizontal and vertical displacements. The results obtained are given in the table and in the figure.

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E032/E314

Measurement of the "Noise" of the MBI-9 Microscope

Data for the stage of the microscope Koritska MS-2 (Ref. 1) and the stage with glass guides are given for comparison. Fig. 1 shows that in the case of the horizontal displacement of the stage the noise increases in proportion to the cell-size ($\bar{\varepsilon}_2 \sim t$) . It should be noted that the vertical noise in the case of rough refocusing reaches up to ~ 0.1 μ for the second difference when $t = 10$ μ . The total noise $\bar{\varepsilon}_{tot}$ was determined using horizontal proton tracks corresponding to an energy of $\sim$ 100 MeV. Measurements were made using two microscopes, amplifications of 15 x 60 and 15 x 90, and cell sizes of 20 and 100 μ for which true Coulomb scattering was small (< 0.05 μ). The magnitude of the noise is independent of the magnification and the cell-size, and does not change very much from microscope to microscope. The mean value of the total noise is $\bar{\varepsilon}_2 \simeq 0.16$ μ, $\bar{\varepsilon}_3 \simeq 0.28$ μ.

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

S/120/60/000/005/039/051
E032/E314

Measurement of the "Noise" of the MBI-9 Microscope

These data make it possible to use the MBI-9 microscope in the measurement of multiple Coulomb scattering of particles having a momentum of ~ 100 MeV/c whose tracks have a dip angle of less than 10 deg. It should be noted that the MBI-9 microscope is very convenient to use so that the particle energy can be rapidly measured.
There are 1 figure, 1 table and 2 references: 1 Italian and 1 Soviet.

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VAYSENBERG, A.O.; KOLGANOVA, E.D.; RABIN, N.V.; PESOTSKAYA, Ye.A.

Ionization measurement in photoemulsions of type P. Prib. i tekh. eksp. 6 no.2:57-59 Mr-Ap '61. (MIRA 14:9)
(Ionization) (Photographic emulsions)

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VAYSENBERG, A.O., KOLESNIKOVA, E.D.; RABIN, N.V.

Measuring the masses of charged particles with a short residual range in nuclear photographic emulsions. Prib. i tekh. eksp. 9 no.4:71-75 Jl-Ag '64. (MIRA 17:12)

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"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001343

L 13496-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AP4047893 S/0056/64/047/004/1262/1269

AUTHORS: Vaysenberg, A. O.; Kolganova, E. D.; Rabin, N. V.

TITLE: Mass spectrum of charged particles emitted upon absorption of negative pions by emulsion nuclei

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1262-1269

TOPIC TAGS: particle spectrum, negative pi meson, pion scattering, nuclear emulsion

ABSTRACT: This is a continuation of earlier work (Phys. Let. v. 2, 112, 1962) and is aimed at obtaining more accurate data on the yields of different charged particles and their spectra. The work was done with nuclear emulsions, each measuring 100 x 100 x 0.4 mm, exposed to the slow negative pion beam of the OIYaI synchrocyclotron. Charged particle mass spectra were measured for the light (C, N, O)

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and heavy (Ag, Br) emulsion nuclei. The emulsions were also exposed to fast negative pions (300 MeV). The results indicate that the yields of deuterons and tritons with energies $\geq$10 MeV from light nuclei disintegrated by slow negative pions are approximately 40 and 15% respectively. The yield of deuterons with energies $\geq$20 MeV from heavy nuclei is close to 40% and is small for energies less than 20 MeV. Absorption of fast negative pions does not result in appreciable emission of complex particles. A comparison of the results with calculations based on the direct-reaction theory shows that the experimental data are best described by the pole mechanism of absorption of a negative pion by a nucleon, if it is assumed that the virtual particle is the He^4 nucleus. "The authors are grateful to I. S. Shapiro for continuous interest and a discussion." Orig. art. has: 6 figures, 5 formulas, and 2 tables.

ASSOCIATION: None

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ACCESSION NR: AP4047893

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SUB CODE: NP NR REF SOV: 003 OTHER: 007

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VAYSENBERG, A.O.; KOLGANOVA, E.D.; RABIN, N.V.

Disintegration of photoemulsion nuclei by slow μ^--mesons. IAd. fiz. 1 no.4:652-658 Ap '65. (MIRA 18:5)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

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5(1) 25(5)

AUTHORS: Atroshchenko, V. I., Doctor of Technical Sciences, Asnin, Ya. I., Candidate of Technical Sciences, Vilesov, G. I., Nikitskaya, Z. A., Rabin, P. S.

SOV/64-59-6-10/28

TITLE: Removal of Salt From Industrial Condensates of Nitrogen Fertilizer Enterprises by Means of Ion Exchange Resins

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 6, pp 499 - 501 (USSR)

ABSTRACT: The vapor condensate of the evaporators used in the nitrogen fertilizer industry is contaminated with NH_4^+ and NO_3^- ions and has to be purified prior to its further use (as a steam boiler feed). Experiments carried out under the supervision of B. D. Bryanskiy (deceased) showed that by means of ion exchange resins it is not only possible to remove salt from the condensate but to re-use the ammonium nitrate obtained if the cation exchanger is regenerated with nitric acid and the anion exchanger with an ammonia solution. Among the investigated cation exchangers the type KU-2 proved to be best; in this case the regeneration takes place by means of a

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